

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000777**Date Inspected:** 07-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi, Lu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans Mock-Up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Ken Jobes randomly observed the in-process and completion Shielded Metal Arc Welding (SMAW) on two weld joints on the 89M Mock-Up Diaphragm Plate Sub-Assembly. The welds are identified as MUSB-SA13 B/C-17 and 18. The QA Inspector observed that ZPMC American Welding Society (AWS) Certified Welding Inspectors (CWI), Sha Zhi (AWS CWI No. 07081551) and Lu Le Feng (AWS CWI No. 07031411) were present during welding. Welding Procedure Specification (WPS) No. B-T-3312-TC-P5, Rev. 0 for Shielded Metal Arc Welding (SMAW) was used for this welds. The procedure references the following:

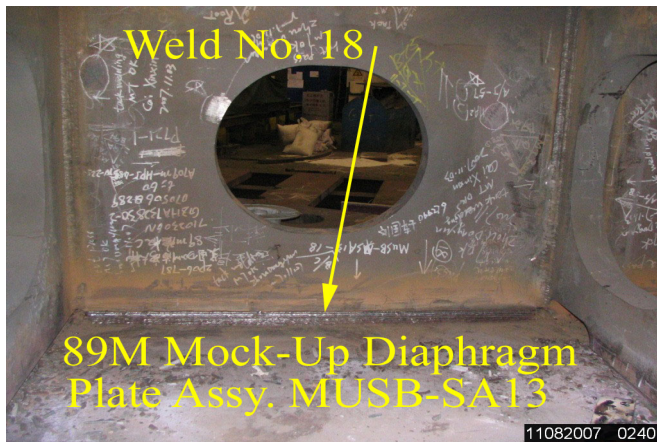
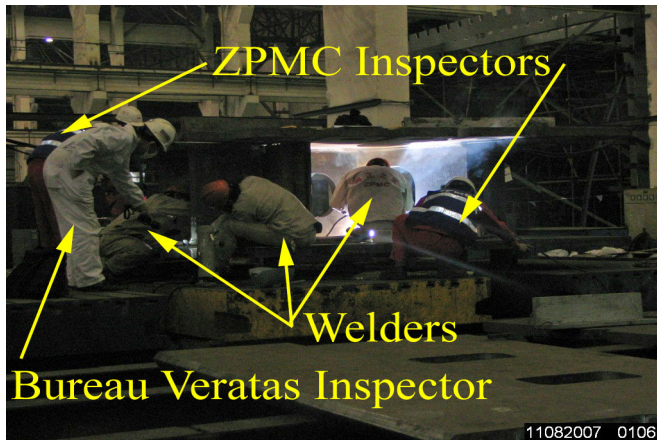
Electrode	Diameter (mm)	Amperage	Voltage	Travel Speed (mm/Min.)
E9018M-H4R	4.0	130 – 210	19 – 27	51 – 181
E9018M-H4R	4.8	180 – 300	20 – 28	74 – 269

The QA Inspector observed that the parameters used were within the given WPS ranges above. The specified preheat and interpass temperatures were observed to be within 180° Celsius minimum and 230 ° C maximum as specified on the WPS for thicknesses greater than 60 mm. This fillet weld joins 60 mm to 75 mm thicknesses. The QA Inspector observed that the welders were Jin Rong (No.66471) and Li Zhengxu (No.066179). Using the APMC Master List of Welders/Welding Operators/Tack Welders, the QA Inspector verified the welders' qualification in the horizontal (2G) position for thicknesses from 3 mm to unlimited.

The weld is shown on assembly drawing No. MUSB-SA13 B/C, Page 26, approved 11-23-2006. The weld detail is shown on Drawing MU-WDT-3. The weld is partial penetration double bevel groove weld with no reinforcing fillet. It was observed that this weld was completed during this shift.

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Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Jobes,Kenneth	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
